



Elwha River Restoration

Service Support for the Nation's Largest Dam Removal Project

Breaking ground in the Elwha Basin

In mid-September 2010, contractors broke ground to remove two dams on the Olympic Peninsula's Elwha River near Port Angeles, Washington. The Elwha Dam, built in 1913 and 108 feet tall, and the Glines Canyon Dam, built in 1927 and 210 feet tall, are the nation's two largest dams to be decommissioned to date. "What once seemed radical is now mainstream," said Bob Irvin, President of American Rivers, whose group has advocated dam removal for environmental reasons [as quoted in *The Washington Post*, September 16, 2011]. Both dams, neither with fish passage facilities, were built to provide hydroelectric power to a nearby paper mill for which an alternative power source was secured.

Biological Benefits of Dam Removal

Dam removal and river restoration will occur over a three-year period in order to effectively manage the 24 million cubic yards of sediment stored behind the two dams. Once complete, the project will provide 70 miles of habitat

benefitting a wide range of species including steelhead, Chinook, coho, sockeye, and pink salmon as well as bull trout, Pacific lamprey, coastal cutthroat trout and other species.



River restoration will benefit Service trust species such as bull trout (Credit: Roger Tabor, USFWS)

Salmon populations in the Elwha River are predicted to grow from the current 3,000 adults yearly to near historic maximum abundance level of 400,000 fish (including pink salmon runs, which return once every two years) in approximately 25 years..



Credit: John Gussman

Service Roles on the Elwha River Restoration Project

This project was spearheaded by the National Park Service with support from multiple agencies and organizations. The Service's Fishery Resources and Ecological Services programs provided many contributions, working in partnership with state, federal, and tribal governments and non-governmental organizations to make this a successful project.



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Service biologists assisted with radio-tagging Elwha River bull trout to monitor migration and population responses to river restoration efforts
(Credit: USFWS)

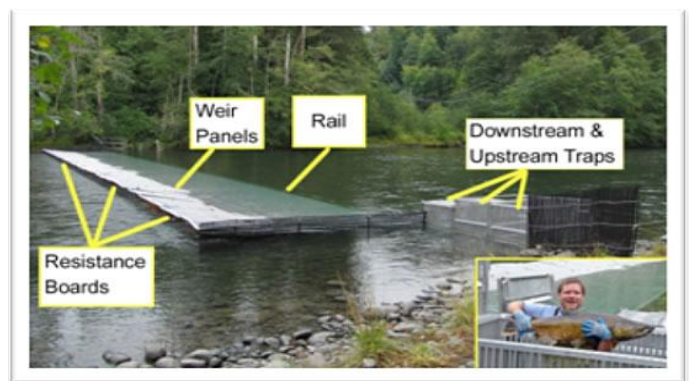
Our efforts have included:

- Providing input on dam decommissioning studies and evaluations.
- Providing guidance on project design and implementation.
- Developing regulatory guidelines to protect listed species during dam decommissioning and removal.
- Assisting in bull trout salvage operations prior to periods of high turbidity resulting from dam decommissioning.
- Assisting in fisheries management activities, including construction and operation of a fish capture weir (see photo, right) downstream of Elwha Dam, to ensure successful recolonization of salmon.
- Assisting in monitoring and evaluation of dam removal, river restoration, and fish population response
- Assessed and monitored disease risks in the watershed to future returning fish.

Project History in Brief

Service employees have been working with partners since the late 1970s on the removal of Elwha and Glines Canyon Dams and river restoration. This project, estimated at \$325 million, took decades of planning and environmental analysis. Congress authorized removal of the dams in 1992 with the Elwha River Ecosystem and Fisheries Restoration Act, but it took many years thereafter to secure federal funding and necessary authorizations.

The National Park Service, as the lead federal agency for the Elwha River Restoration Project, has more historical and current project information on their website: [Olympic National Park - Elwha River Restoration \(U.S. National Park Service\)](http://www.nps.gov/olym/ElwhaRiverRestoration.htm).



A temporary fish trap (resistance board weir) in the Elwha River used to count returning salmon (Credit: USFWS)

Learn More About On-The-Ground Elwha Dam Removal and River Restoration

To see an animation of the decommissioning of Elwha Dam courtesy of the Olympic National Park, go to: <http://www.youtube.com/watch?v=dKGlt00PVzE>

Visit the Washington Fish and Wildlife Office Fisheries Division's Blog, *the Fish Files*, to learn more about our work with partners in restoring the Elwha River: <http://the-fish-files.blogspot.com/>



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